43556

National Library of Canada | Bibliothèque nationale du Canada

Canadian Theses Division | Division des thèses canadiennes

Ottawa, Canada
K1A 0N4

PERMISSION TO MICROFILM — AUTORISATION DE MICROFILMER

• Please print or type — Écrire en lettres moulées ou dactylographier

Full Name of Author — Nom complet de l'auteur

Kathleen Celia Smyth

Date of Birth — Date de naissance: 19/08/48

Country of Birth — Lieu de naissance: Canada

Permanent Address — Résidence fixe

3215 - 12 St Edmonton, Alberta T6K 1K6

Title of Thesis — Titre de la thèse

Psychological, Demographic and Educational Correlates of Persistence in College

University — Université

University of Alberta

Degree for which thesis was presented — Grade pour lequel cette thèse fut présentée

M. Ed

Year this degree conferred — Année d'obtention de ce grade: 1979

Name of Supervisor — Nom du directeur de thèse: Dr. E. E. Fox

Permission is hereby granted to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

L'autorisation est, par la présente, accordée à la BIBLIOTHÈQUE NATIONALE DU CANADA de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans l'autorisation écrite de l'auteur.

Date: 19/10/79

Signature: Celia Smyth

NL-91 (4/77)

National Library of Canada

Cataloguing Branch
Canadian Theses Division

Ottawa, Canada
K1A 0N4

Bibliothèque nationale du Canada

Direction du catalogage
Division des thèses canadiennes

NOTICE

The quality of this microfiche is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us a poor photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this film is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30. Please read the authorization forms which accompany this thesis.

THIS DISSERTATION
HAS BEEN MICROFILMED
EXACTLY AS RECEIVED

AVIS

La qualité de cette microfiche dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de mauvaise qualité.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, examens publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de ce microfilm est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30. Veuillez prendre connaissance des formules d'autorisation qui accompagnent cette thèse.

LA THÈSE A ÉTÉ
MICROFILMÉE TELLE QUE
NOUS L'AVONS REÇUE

NL-339 (3/77)

THE UNIVERSITY OF ALBERTA

PSYCHOLOGICAL, DEMOGRAPHIC AND EDUCATIONAL CORRELATES OF PERSISTENCE IN COLLEGE

by

© KATHALEEN CELIA SMYTH

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE

DEGREE OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL, 1979

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled PSYCHOLOGICAL, DEMOGRAPHIC AND EDUCATIONAL CORRELATES OF PERSISTENCE IN COLLEGE submitted by KATHALEEN CELIA SMYTH in partial fulfilment of the requirements for the degree of MASTER OF EDUCATION.

. . . . . .
Supervisor

. . . . . .

. . . . . .

September 17, 1979

ABSTRACT

The goal of this study was to isolate psychological, educational and demographic dimensions related to persistence at Grant MacEwan Community College.

137 freshmen from the Fall of 1975 completed the Student Entrance Questionnaire, consisting of items ranging from demographic to educational attitude in content, as well as the Fundamental Interpersonal Relations Orientation-Behavior (FIRO-B), a measure of expressed and desired social integration. College records were monitored over a period of four years in order to classify students as persisters or nonpersisters. 122 students from this initial sample were contacted in the Spring of 1979 and asked to complete the items from the first four scales of the Omnibus Personality Inventory (OPI) to obtain a measure of academic orientation. There was a 40% response rate.

Data were subjected to t tests for significance of difference between independent samples. Results indicated that there were significant differences between the two groups. When both sexes were included, educational attitude and psychological factors were the best discriminators. When the two groups were divided on the basis of sex, significance of difference was reported on demographic variables in addition to educational and psychological items.

These findings are seen as suggesting that psychological and educational attitude variables can differentiate persister from nonpersister college freshmen of both sexes while demographic variables have some power in discriminating groups of the same sex.

ACKNOWLEDGEMENT

The author wishes to thank the following people:

Dr. E. E. Fox, for his guidance and supervision;

Dr. W. N. Hague and Dr. R. G. McIntosh for their contribution to the examining committee;

B. Cowan and B. Giles, colleagues, for their assistance;

Staff and students at Grant MacEwan Community College for their cooperation;

S. McLeod and S. McLean for their typing.

TABLE OF CONTENTS

CHAPTER		PAGE
I	THE PROBLEM	1
II	LITERATURE REVIEW	4
	Categories of Research	4
	College Attrition Research	5
	Individual Characteristics	6
	Age and Sex	6
	Family	6
	Academic Ability	7
	Attitude	7
	Finances	7
	Personality	8
	Social Interaction	10
	Summary	11
	HYPOTHESES	11
	Hypothesis 1	11
	Hypothesis 2	12
	Hypothesis 3	12
	Hypothesis 4	12
	Hypothesis 5	12
	Hypothesis 6	12
III	PROCEDURE AND DESIGN	13
	The Sample	13
	Definitions	14

CHAPTER PAGE

INSTRUMENTS 14

Student Entrance Questionnaire 14

Fundamental Interpersonal Relations Orientation-Behavior (FIRO-B) 16

Omnibus Personality Inventory (OPI) 17

Data Collection Procedures 18

Analysis 19

IV RESULTS 20

HYPOTHESES FOR PERSISTERS AND NONPERSISTERS OF BOTH SEXES 20

Hypothesis 1 20

Findings 20

Conclusion 21

Hypothesis 2 21

Findings 21

Conclusion 23

Hypothesis 3 23

Findings 23

Conclusion 26

Hypothesis 4 26

Findings 26

Conclusion 26

Hypothesis 5 32

Findings 32

Conclusion 41

Hypothesis 6 41

CHAPTER PAGE

Findings 41

Conclusion 50

SUMMARY OF RESULTS 50

V IMPLICATIONS 53

Summary and Discussion 53

Implications for the College 55

REFERENCES 57

APPENDICES 62

LIST OF TABLES

TABLE	DESCRIPTION	PAGE
1	Means and Standard Deviations for Persisters and Nonpersisters for the Intellectual Disposition Category of the OPI	22
2	Means and Standard Deviations for Persisters and Nonpersisters on the Educational Scale	24
3	Means and Standard Deviations for Persisters and Nonpersisters on 43 Demographic Variables	27
4	Means and Standard Deviations for Persisters and Nonpersisters on the FIRO-B	31
5	Means and Standard Deviations for Females on the FIRO-B	33
6	Means and Standard Deviations for Females on the Intellectual Disposition Category (OPI)	34
7	Means and Standard Deviations for Females on the Educational Scale	35
8	Means and Standard Deviations for Females on 42 Demographic Variables	37
9	Means and Standard Deviations for Males on the FIRO-B	42
10	Means and Standard Deviations for Males on the Intellectual Disposition Category (OPI)	43
11	Means and Standard Deviations for Males on the Educational Scale	44
12	Means and Standard Deviations for Males on 42 Demographic Variables	46

CHAPTER ONE

THE PROBLEM

In A Future of Choices, Worth (1972) predicts: "Higher education, which presently embraces colleges, institutions, and universities, will be required to play a more significant role in the lives of a greater number of Albertans than it has in the past. Alberta, like Canada and other western countries, appears to be in an intermediary and critical period between elistist and mass higher education (p.55)."

As Worth (1972) predicts, the seventies saw an increase in the number of persons who applied for post-secondary education. Conversely, the seventies also saw a period of no growth, or constraint in many of Alberta's institutions of higher learning. Thus, many institutions are forced into implementing selection procedures, curtailing the availability of higher education.

With the close of this decade at hand, forecasts for future growth among some of Alberta's post-secondary system are dismal. Institutions, in these times of financial exigency, seek to stretch the educational dollar.

Thus, one of the issues institutions are addressing, in search of a solution is attrition.

One need not be a financial expert or closely connected to the economics of higher education to realize the paramount losses inherent in a high attrition rate. Not only do students who register and fail to remain in attendance reduce the number of full time equivalents upon which government grants are based, but they also waste time, energy, and financial resources the institution expends in teaching,

counselling, and record maintenance.

Equally, if not even more critical, are the losses experienced by the student who drops out. Wenc (1977) estimates that 40 to 50 per cent of all freshmen dropout of higher education entirely. Financially, this often involves a substantial cost to the student in lost earnings potential and immediate costs which may include the repayment of a student loan. Furthermore, the personal losses experienced by many students are often more devastating and enduring. A sense of failure, frustration and bitterness are common to those who perceive post-secondary education unsuited and often insensitive to their needs and skills. For these students, to know what one's chance of persisting is, would be invaluable. Astin (1975) attempts to develop such an equation.

For a society with scant monetary resources and a burgeoning unemployed population of 18 to 24 year olds, post-secondary attrition is burdensome. Although vocational is cited as the primary motive for entering the post-secondary non-university system (Bosetti, 1972), many who pursue such goals leave without their realization.

Cognizant of the hardships attrition creates for student, institution and society, it is of little surprise to discover hundreds of reports on student attrition in educational and psychological literature. In fact, students who do not persist at post-secondary education have been of constant concern of educators for decades.

Community colleges in the United States and Canada have in common the problem of a very high droupout rate. Similar to national averages, Grant MacEwan Community College, Edmonton, Alberta, reports an attrition rate of 55% (Wilson, 1975).

To safeguard the future of those students who elect to attend this institution as well as the very future of the institution itself, characteristics that differentiate the student with high dropout potential and the student with high persistence potential should be identified in order to understand and reduce attrition. Research (Boshier, 1972; McIntosh, 1974; MacMillan, 1973) has shown that early identification of and implementation of programs for potential dropouts significantly reduce attrition rates.

The goal of this study is to isolate psychological, educational and demographic dimensions related to nonpersistence at Grant MacEwan Community College. Hopefully these measures will help identify potential dropouts and thus preventive measures for the individual could be attempted and more efficient use of existent resources could be effected.

To actualize the goal of this study, 137 freshmen who registered at Grant MacEwan Community College in the Fall of 1975 completed the Student Entrance Questionnaire consisting of 65 items ranging from demographic to educational attitude in content, as well as the FIRO-B, a measure of expressed and desired social integration. College records were monitored over a period of four years in order to classify students as persister or nonpersister. Of the 137 students, 80 were later classified as persisters and 57 as nonpersisters.

Additionally, 122 students from this initial sample were contacted in the Spring of 1979 by letter and asked to complete items from the first four scales of the OPI, the primary components of the intellectual disposition category, in order to obtain a measure of academic orientation. There was a 40% response rate.

CHAPTER TWO

LITERATURE REVIEW

If there is a single unifying feature in the problem of attrition in institutions of higher learning, it is one of concern shared by educators, administrators, researchers, and students alike. Beyond this link of concern, the equivocal nature of this phenomenon has led to varying approaches in its study. The amount of research on college attrition might suggest that much is known; however, questions remain unanswered and discord among researchers waits unresolved.

Categories of Research

The magnitude of attrition research is simplified by the use of categories. While arguments abound for the use of others (Spady, 1970), the four categories Knowell (cited in Spady, 1970) proposes provide not only convenience but a chronological perspective for dropout studies. The four categories of the investigations are: census studies, which attempt to document the magnitude of attrition, and transfer rates within or across institutions; autopsy studies, which seek self-reported reasons for students leaving school; case studies, which generally involve long-term follow-ups of students initially regarded as potential risks at the time of admission; and predictive studies which utilize a range of admission variables to generate prediction equations for a variety of college 'success' measures (Spady, 1970, p.65).

Initial dropout research, primarily of the census variety, has provided a data base on which later inquiries were founded. It provided the facts: college dropout rates are high, the term dropout must be specifically defined, the freshman dropout is the greatest.

The second category of studies, provide post hoc explanations for dropping out. However, Astin (1975) cautions: "to accept these interpretations at face value is a questionable practice, considering the complexity of the dropout phenomenon and the natural tendency of persons to rationalize behavior which might be regarded by others as evidence of failure (p.14)." Students often cite socially acceptable reasons such as financial problems and boredom with courses (Astin, 1975; Spady, 1970; Wenc, 1977). The last two categories of research are thus the most useful in the prediction and prevention of attrition.

Much time has been devoted to the inadequacy of attrition study designs. Astin (1975) states the principal deficiency is the lack of longitutindal design and the use of only one or a limited number of institutions. Further criticism is directed at dropout investigations in that there is a lack of theory-based research (Spady, 1970; Tinto, 1975). Spady (1970, 1971) and Tinto (1975) who provide representative surveys of the literature conclude that the most useful studies are theory-based and adopt multivariate designs and statistical procedures. Others such as Maynard (1975) suggest that traditional methods of data analysis are inadequate.

All of the above noted shortcomings of existing research will be guarded against in the design of the present investigation.

College Attrition Research

In order to synthesize research on the dropout from college, individual characteristics of students that appear to be related to their persistence in college will be examined first, then the characteristics associated with student's interaction within the college

environment will be evaluated.

Individual Characteristics

Demographic, family, environmental, academic, personality, value and attitudinal factors are among the correlates of persistence identified by researchers. Oldroyd (1975) stresses that efficient prediction of early attrition is extremely difficult because so many variables are involved.

Age and Sex

Of the demographic factors which are most often included in research, review indicates that age is not a crucial variable and that sex, although not significant in overall attrition rates, can be significant in certain cases (Pantages & Creedon, 1978).

Family

General findings demonstrate that likelihood of an individual dropping out of college is related to family characteristics (Tinto, 1975; Astin, 1975; Spady, 1970, 1971). More specific findings enumerate particular family attributes relating to persistence in college. In essence, this research suggests that persisters are more likely to come from families who are more eduated and urban. Dubois (cited in Spady, 1970), however, finds an actual reversal between background variables and attrition. In his study at a relatively unselective institution, students with fathers of blue collar status were more likely to remain than those whose fathers had high occupational status. This may also be the case at Grant MacEwan Community College which is an 'open-door' institution.

Other factors that have been found to be important to persistence

in college are the quality of the relationships within the family and the interest and expectations parents have for their children's education (Cope & Hannah, 1975).

Academic Ability

As important as the student's family is his or her ability. In fact, much study has been devoted to the relative importance of academic vs. nonacademic variables (Morgan, 1971; Morrisey, 1971; Bean & Covert, 1973; Lanning, 1977). Measures of ability such as those obtained on standardized tests such as the American College Test (ACT) and the Scholastic Aptitude Test (SAT), as well as grade point averages may be the most significant predictors of attrition (Pedrini & Pedrini, 1976). Academic ability and educational success do not guarantee persistence: many academically capable students choose to leave. Vanderwell and Sartoris (1973) observe comparable academic achievement levels between students withdrawing and students not withdrawing. Academic factors are then only one of the individual characteristics related to persistence.

Attitude

The role of attitudes in college adjustment may be as important as the intellectual resources of the student. Steele (1978) and Timmons (1978) distinguish persisting and nonpersisting students on the basis of attitudes toward college. The present study includes an educational attitude component.

Finances

The influence of financial factors in attrition is controversial.

In autopsy studies, students consistently rank finances high in their reasons for dropping out. Research, however, indicates that these are not the primary reasons that prompt students to drop out (Cope & Hannah, 1975; Wenc, 1977). Financial reasons are often given by students because they are socially acceptable.

Furthermore, Wenc (1977) warns: "It is important to reiterate that we should not be lured into the trap of assessing attrition and retention in academic and/or financial terms, as there is every indication that the actual reasons for withdrawal are related to poor choice of institution and motivational factors that bear on a student's commitment to a specific educational goal (p.19)."

Personality

The final individual characteristic to be discussed is personality. Tinto (1975) suggests the significance of personality characteristics of incoming college students to persistence is obscured by a lack of adequate measures. Lack of clarity nevertheless has not prevented many from devoting their energies to studying the role of personality in college attrition. Many simply reiterate a need for further research in the area. Heilbrun (1965) comments: "It seems reasonable to expect that personality factors may make a significant independent contribution to student attrition, especially if the first year of college is considered (p.1)." Similarly, among the assumptions Brawer and Cohen (1970) suggest as common among researchers is the need for basic research that seeks to isolate personality dimensions in order to identify the potential dropout. Theories relating personality to attrition generally relate to both the academic and social experience of the student.

Student personality, as related to academic adjustment, is most often measured by the Omnibus Personality Inventory (OPI) (Hannah, 1971; Brawer & Cohen, 1970; Maynard, 1975; Rose, 1970; Morgan, 1971; DeVecchio, 1972). Morgan (1971) and Hannah (1971) explore the personality traits of dropouts and stayins across the different variables of the OPI and find significant differences on several scales. Hannah (1971) concludes that "leavers" are less settled personalities who withdraw from contact, probably because of uncertainty, confusion and lack of direction. Trent and Ruyle (1965) report that intellectual disposition, indexed by combining the OPI scales of reflective thinking, abstract thinking, intellectual curiosity and artistic interests, distinguished the students who were likely to withdraw from college and those who were likely to remain even though they were of comparable intelligence.

Additional OPI scales, Impulse Expression (IE) and Complexity (CO), Hessel (cited in Cope, 1968) finds to differentiate between dropouts and persisters. Students scoring high on these two scales have significantly higher dropout rates. Research by Cope (1968) shows that the variables of Religious Liberalism, Estheticism and Theoretical Orientation distinguish dropouts and stayins. Maynard (1975) attempts to respond to methodological weaknesses of previous attrition/personality studies by examining the relationship between selected personality traits, the type of program entered, and the successful completion of that program. Results of this study indicate that successful students tend to score higher on measures of theoretical orientation, estheticism and complexity. Employment of the OPI in assessing the significance of personality characteristics in college student attrition yields results

as equivocal as the topic in question. That the results are uneven, suggests they should be applied to a specific rather than a general situation.

Other researchers interested in the role of personality characteristics in college attrition use a variety of other instruments. In a study that investigates the relationship of twelve nonintellective factors to attrition and academic achievement, Johnson (1971) includes temperament traits from the Guilford-Zimmerman Temperament Survey. The Rotter Incomplete Sentence Blank identifies factors that differentiate between "defaulters" (voluntary withdrawals) and persisters (Rose, 1970).

Social Interaction

All areas correlated with retention involve interaction with other people (Steele, 1978). Tinto (1975) presents a theoretical model of dropout behavior based on Durkheim's theory of suicide originally developed by Spady (1970). He suggests that: "The social conditions affecting dropout from the social system of the college would resemble those resulting in suicide in the wider society; namely, insufficient interactions with others in the college and insufficient congruency with the prevailing value patterns of the college collectively. Thus, lack of integration to that social system of the college will lead to low commitment to that social system and will increase the probability that individuals will decide to leave college (p.92)."

The efficacy of Tinto's model is tested by Terenzini and Pascarella (1977a, 1977b), who find that students' non-classroom interaction with faculty is related to persistence. Correspondingly, Kegan (1978) contends inadequate or inaccessible advising and student

isolation are significant factors in student withdrawal. Timmons (1978) also addresses the problem of social isolation stating that interaction with peers and faculty is important in adjustment.

Pursuant to these findings, any research on college student attrition will be enhanced by including some measure of social integration. Predictive studies should therefore examine the relationship between interpersonal needs and attrition. Vraa (1971) uses the Firo-B to relate social behavior to academic achievement among college freshmen. This investigation also employes the Firo-B in attempting to predict social integration.

Summary

From the preceding review, the reader may conclude that attrition is the result of an extremely intricate interplay of a multitude of variables. As Spady (1970) suggests dropout behavior is probably best explored by an interdisciplinary approach.

Accepting the interdisciplinary approach, this study utilizes a Student Entrance Questionnaire, which includes demographic as well as attitudinal items; the Firo-B, an instrument to assess expressed and wanted interpersonal needs, to predict social integration, and the Omnibus Personality Inventory to measure academic adjustment.

Specifically, this study will test the six null hypotheses outlined below.

HYPOTHESES

Hypothesis 1

Persisters as opposed to nonpersisters will not obtain different scores on a psychological index of intellectual disposition.

Hypothesis 2

Persisters as opposed to nonpersisters will not obtain different scores on an educational attitude scale.

Hypothesis 3

Persisters as opposed to nonpersisters will not exhibit differences on demographic variables.

Hypothesis 4

Persisters as opposed to nonpersisters will not obtain different scores on a measure of expressed and desired social integration.

Hypothesis 5

Female persisters as opposed to female nonpersisters will not exhibit differences on psychological, educational and demographic variables.

Hypothesis 6

Male persisters as opposed to male nonpersisters will not exhibit differences on psychological, educational and demographic variables.

CHAPTER THREE

PROCEDURE AND DESIGN

The purpose of this study is to investigate whether psychological, educational, and demographic variables can differentiate the persister from the nonpersister college freshman at Grant MacEwan Community College. Cognizant of methological weaknesses in previous research a longitudinal design was adopted whereby data were collected over a period of four years.

The Sample

Subjects for this study consisted of students registered in a wide variety of nontechnical programs at Grant MacEwan Community College, Edmonton, Alberta. Due to an 'open door policy' students represent a wide cross-section of the population in terms of age, achievement and socio-economic status.

The initial sample consisted of 137 freshmen students, 35 males and 102 females, first-time registrants in the Fall of 1975. These students were divided into groups; first, on the basis of persistence and second, on persistence and sex, with the following numbers resulting:

80 Persisters of Both Sexes
57 Nonpersisters of Both Sexes
63 Female Persisters
39 Female Nonpersisters
17 Male Persisters
18 Male Nonpersisters

In the Spring of 1979, a mailing of questionnaires to 122 of the original sample for which addresses were available produced a 40% response rate. This follow-up sample of 50 contained 36 persisters, 27 female and 9 male, and 14 nonpersisters, 11 female and 3 male.

Definitions

Records in the Registrar's Office were examined to categorize students in the above samples according to the following definitions:

(1) Persister - In this study students who completed at least two trimesters (one year) of college and registered for a third trimester of a two year diploma program or completed a one year certificate program were termed persisters.

(2) Nonpersister - Students who withdrew from college either during or at the end of their first year of study of a two year program or during the first year of a one year program were classified as nonpersisters.

In accordance with the longitudinal design of this study and to assure accurate student classification, student records for each of the 137 students in the original sample from 1975-1979 were examined to determine whether nonpersisters re-enrolled in the College after a trimester or more of absence.

INSTRUMENTS

Student Entrance Questionnaire

A 32-item questionnaire (Appendix A) was devised to gather certain educational and demographic information from the student respondents.

Basic areas surveyed in the questionnaire were:

1. name
2. college identification number
3. age
4. sex
5. place of birth
6. size of home community

7. living accomodation
8. marital status
9. father's occupation
10. father's place of birth
11. father's education
12. mother's occupation
13. mother's education
14. mother's place of birth
15. number of brothers and sisters
16. parental feeling toward college
17. parents' marital status
18. feelings about home life
19. relationship with parents
20 educational background
21. college program
22. choice of program
23. student's interpretation of program objective
24. time of first application to college
25. attitude toward education
26. plans after graduation
27. expected course content difficulty
28. amount of study anticipated
29. perceived academic competence
30. social orientation
31. financial resources
32. feelings about financing education

Item #25 on the Student Entrance Questionnaire, the Educational

scale, is a 22-item, Likert-type scale developed by Rundquist and Sletto (1936). The items are broad in content, ranging from the effects of possessing an education upon one's leisure time and upon economic opportunity to conflict between education and work (Shaw, 1967, p.233).

College students were among the sample used in the construction of this scale. Rundquist and Sletto (1936) report split-half reliabilities of .82 and .83 and test-retest reliabilities of .84. Shaw (1967) notes the lack of items regarding the value of college education may restrict the content validity somewhat; therefore, in this study, the words high school were replaced with college.

Fundamental Interpersonal Relations Orientation-Behavior (FIRO-B)

In order to assess the interpersonal needs of the entering college students the FIRO-B was administered. This self-report questionnaire is designed to assess a person's need for inclusion, control and affection in various aspects of interpersonal situations. These aspects of behavior are: behavior which he directs toward others and behavior which he desires others to direct towards himself (Bloxom, 1972).

The FIRO-B is an attractive, easily used four page booklet, which contains 54 items arranged so that responses can be easily recorded on a 6-point Guttman scale. Subscales assess each need separately for each of the two modes of expression: expressed or wanted. (Complete definitions of subscales are found in Appendix B)

Schutz (1967) reports that the internal consistency (reproducibility index) is high, ranging from .93 to .94, for all sub-scales and consistent over samples. All test-retest correlations are adequate (range .71-.82) with a mean coefficient of .76.

Citing the acceptibility of the theory underlying the use of the Guttman scales, Schutz (1967) reports satisfactory content validity. He states that an individual's response to a new item would be at least 90% reproducible from his scale score.

One of the ways concurrent validity of this instrument has been explored was through studying the scores of various occupational groups. Differences among these groups were striking and helped clarify the meaning of the concepts behind the measures. For example, high overall scores were attained by professions requiring a great deal of contact with other adults, such as salesmen and school administrators. It thus appears that FIRO-B subscales are related to nontest behavior.

Bloxom (1972) recommends the FIRO-B for use in systematic research on the subject of interpersonal needs.

Omnibus Personality Inventory (OPI)

Heist and Yonge (1968) designed the OPI primarily for use in research on college students. Coan (1972) views it as an effective instrument for assessing the intellectual orientation and adjustment of college students. Many researchers concerned with the problem of college attrition have employed the OPI (Rose, 1970; Morgan, 1971; Cohen, 1970; DeVecchio, 1972).

Utilizing a true-false format, Form F, includes 385 items and yields 15 scores: thinking introversion, theoretical orientation, estheticism, complexity, autonomy, religious orientation, social extroversion, impulse expression, personal integration, anxiety level, altruism, practical outlook, masculinity-femininity, response bias and intellectual disposition, based on the first six scores. All scales have relevance to the problems of adaptation at the college level.

The test appears to have adequate reliability. The K-R 21 and split half estimates of internal consistency reported range from .73 to .91 for the substantive scales, and test-retest coefficients vary from .79 to .94. Validity approached through correlations with other inventories, obtained coefficients in line with expectations (McReynolds, 1972).

Norms are provided for college freshmen only. Although the test is long, taking the average respondent from 45 to 60 minutes for completion; it is considered as good as any alternative instrument available (Coan, 1972, p.116).

In order to reduce the length of the inventory and thus insure a better response rate, only the items on the first four scales were included in this study. These scales serve as primary criteria in a system of locating persons on certain points on a continuum of intellectual disposition. The first four scales that comprise this category are: Thinking Introversion (TI), Theoretical Orientation (TO), Estheticism (Es) and Complexity (Co). Validation studies have shown that persons distributed along this dimension are products of a variety of background experiences and have distinctly dissimilar orientations toward learning and scholastic activities.

Data Collection Procedures

During registration in the Fall 1975 Trimester, students were asked to complete the Student Entrance Questionnaire and the FIRO-B. Tests were administered by research assistants who explained why the data were being collected. Less than a total population of freshmen was obtained for the following reasons: (1) student participation

was voluntary; (2) students who registered late were not included; and (3) only those questionnaires containing complete data were included in the final analysis.

In May, 1979 a questionnaire consisting of the items of the four scales that comprise the primary criteria for the intellectual disposition category of the OPI was mailed to 122 of the 137 students in the original sample. Nonrespondents were sent a second questionnaire in June. (Appendix C)

Analysis

Results from the Student Entrance Questionnaire, FIRO-B, and the OPI were entered on computer cards and subjected to the ANOV 10 program of the Division of Educational Research Services, University of Alberta, which carries out *t* tests between independent means was used. Criterion significance was set at .05 but trends beyond .10 were also noted.

CHAPTER FOUR

RESULTS

Can psychological, educational and demographic variables distinguish persister from nonpersister students? In attempting to answer this question, the following steps were taken. Persisters and nonpersisters in the first four procedures consisted of both males and females while in the last two steps, these two nominal groups were further subdivided on the basis of sex. First, persisters and nonpersisters were compared on a psychological index of intellectual disposition. Second, educational attitude scores on the same nominal groups were examined. Third, 43 demographic variables were analyzed for persister and nonpersister groups. Fourth, persister and nonpersister scores on a measure of social integration were compared. Fifth, female persisters and female nonpersisters were contrasted on intellectual disposition, educational attitude, social integration, and demographic variables. Finally, males of the same nominal groups were examined across the above categories.

For each of the six procedures, the pertinent null hypothesis will be restated, followed by findings and conclusions appropriate to each hypothesis.

HYPOTHESES FOR PERSISTERS AND NONPERSISTERS OF BOTH SEXES

Hypothesis 1

Persisters as opposed to nonpersisters will not obtain different scores on a psychological index of intellectual disposition.

Findings

The means and standard deviations of the four scales of the OPI

that serve as primary criteria for the intellectual disposition category are reported in Table 1. *t* tests for significance of difference between independent samples revealed that there are no significant differences on any scores.

The homogeneity of the groups was also exemplified by examining variance. The F test for a significance of difference between independent variances did not produce any scores that were significantly different.

Conclusion

Hypothesis 1 is confirmed.

Persisters as opposed to nonpersisters did not obtain different scores on a psychological index of intellectual disposition.

Hypothesis 2

Persisters as opposed to nonpersisters will not obtain different scores on an educational attitude scale.

Findings

In Table 2, means and standard deviations for the 22 items of the educational scale appear. *t* tests for significance of difference between independent samples produced significant differences at the .05 level on the following five variables:

1. School training is of little help in meeting the problems of real life.
2. College courses are too impractical.
3. Savings spent on education are wisely invested.
4. An educated person can advance more rapidly in business and industry.
5. Parents should not be compelled to send their children to school.

Table 1

Means and Standard Deviations for 36 Persisters and 14 Nonpersisters on the four scales that serve as primary criteria for the Intellectual Disposition Category of the OPI

Variable	Persister	Nonpersister	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Thinking Introversion	45.500	44.714	0.342	0.734	6.627	8.853	1.785	0.264
Theoretical Orientation	45.139	45.286	-0.061	0.952	7.176	8.722	1.477	0.458
Estheticism	43.083	44.286	-0.502	0.618	7.420	8.090	1.189	0.767
Complexity	49.611	49.643	-0.020	0.984	9.318	9.997	1.151	0.819

t	F
.05 (2.021)	.05 (2.38)
.10 (1.684)	.01 (3.51)

Persisters expressed a significantly higher agreement with the above statements as indexed on a five point Likert-type scale.

Additionally, a difference at the .10 level was noted on the following two items:

1. Only subjects like reading, writing and arithmetic should be taught at public expense.

2. Most young people are getting too much education.

Nonpersisters agreed with the first item above significantly more while persisters agreed with the second item.

The F test for significance of difference between independent variances produced 11 scores that were significantly different. This finding further supports the diversity of the two groups.

Conclusion

Null Hypothesis 2 is rejected. Persisters as opposed to nonpersisters did obtain different scores on an educational attitude scale.

Hypothesis 3

Persisters as opposed to nonpersisters will not exhibit differences on demographic variables.

Findings

Demographic variable means and standard deviations for persisters and nonpersisters are compiled in Table 3. Results from *t* tests for significance of difference between independent samples indicated that persisters cannot be distinguished from nonpersisters on demographic data at the .05 level of significance. There are however, three differences at the .10 level. Scores indicate that persisters tend to look forward to meeting new friends and finance their education by using savings and by receiving assistance from their spouses more than nonpersisters.

Table 2

Means and Standard Deviations for 80 Persister and 57 Nonpersister Students on the Educational Scale

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Work better	1.125	1.018	1.240	0.217	0.559	0.401	1.953**	0.009
Enjoy life	3.288	3.281	0.040	0.968	0.917	1.065	1.349	0.237
Use leisure	3.300	3.333	-0.165	0.869	1.206	1.107	1.185	0.505
Great Comfort	3.536	3.509	0.155	0.877	1.090	1.037	1.105	0.699
Only 3R's	2.525	2.895	-1.773**	0.078	1.212	1.190	1.036	0.899
No help getting job	3.913	3.754	0.811	0.419	1.127	1.123	1.008	0.984
Getting too much	4.288	3.983	1.887**	0.061	0.814	1.077	1.750*	0.028
Worth Effort	3.900	3.684	1.160	0.248	1.014	1.152	1.291	0.314
Encourage Thinking	4.013	3.930	0.481	0.631	0.948	1.050	1.227	0.412
Fads & Frills	3.375	3.193	0.921	0.359	1.060	1.246	1.381	0.203

Table 2
... continued

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Discontented	3.113	2.947	0.819	0.414	0.871	1.481	2.889**	0.000
Life Problems	4.163	3.790	2.380*	0.019	0.737	1.098	2.219**	0.002
Less Conceited	3.586	3.333	1.391	0.167	0.977	1.155	1.397	0.187
World Problems	2.650	2.474	1.043	0.299	0.797	1.182	2.198**	0.002
Courses Impractical	3.513	3.158	2.057*	0.042	0.779	1.236	2.516**	0.000
School Foolish	3.813	3.684	1.010	0.314	0.618	0.869	1.978**	0.008
Wise Investment	4.188	3.895	1.987*	0.049	0.638	1.080	2.865**	0.000
Can Advance	4.163	3.754	2.861*	0.005	0.605	1.057	3.055**	0.000
Not Compulsory	3.925	3.421	2.675*	0.008	0.897	1.309	2.129**	0.003
More Valuable	3.550	3.597	-0.202	0.840	1.330	1.321	1.014	0.966
Better Citizen	4.063	3.930	0.946	0.346	0.700	0.942	1.813*	0.020
Other Purposes	3.113	2.930	0.981	0.328	1.031	1.132	1.205	0.464

t p.05 (1.980)*
p.10 (1.658)**

F p.05 (1.52)*
p.01 (1.82)**

The F test for significance of difference between independent variances indicated that eight variables were significantly different. Differences were noted on father's occupation, mother's and father's feelings about college, attitude toward parents, social life, level of education, expected difficulty of course content, and method of financing education. Although these findings indicate some diversity between the groups, when considering 43 variables it is not significant in itself.

Conclusion

The hypothesis is confirmed. Persisters as opposed to nonpersisters will not exhibit differences on demographic variables.

Hypothesis 4

Persisters as opposed to nonpersisters will not obtain different scores on a measure of expressed and desired social integration.

Findings

Table 4 indicates that there was a significant difference between persisters and nonpersisters on one score. t tests for a significance of difference between independent samples revealed nonpersisters scored higher on Expressed Control, the desire to exert control over things and take charge.

The homogeneity of the groups was further exemplified by the variance. The F test for significance of difference between independent variances did not produce any scores that were significantly different.

Conclusion

Persisters as opposed to nonpersister did obtain different scores on a measure of expressed and desired social integration. Hypothesis 4

Table 3

Means and Standard Deviations for 80 Persister and 57 Nonpersister Students on 43 Demographic Variables

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Age	22.925	22.140	0.593	0.555	7.503	7.830	1.089	0.743
Sex	1.783	1.684	1.366	0.174	0.412	0.469	1.298	0.304
Birthplace	1.963	2.018	-0.159	0.874	2.009	1.987	1.022	0.938
Type of Community	3.675	3.895	-0.595	0.553	2.145	2.110	1.033	0.906
Father's Occupation	3.075	3.386	-0.853	0.395	1.840	2.426	1.737*	0.030
Father's Birthplace	2.763	2.421	0.724	0.471	2.821	2.577	1.198	0.478
Father's Education	3.275	2.930	0.766	0.445	2.526	2.705	1.147	0.592
Mother's Occupation	2.538	2.544	-0.014	0.989	2.648	2.612	1.027	0.924
Mother's Education	2.938	3.105	-0.384	0.702	2.389	2.697	1.275	0.338

Table 3
... continued

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	p	Persister	Nonpersister	F Ratio	p
Mother's Birthplace	2.850	2.298	1.214	0.227	2.806	2.337	1.442	0.149
Number of Brothers & Sisters	0.013	0.000	0.000	0.851	0.000	0.000	1.092	0.000
Father's feelings about college	3.063	3.123	-0.188	0.113	1.885	1.804	1.798*	0.733
Mother's feelings about college	4.425	4.105	1.594	0.283	1.004	1.345	1.798*	0.022
Parent's Marital Status	3.150	3.895	-0.078	0.930	3.950	3.039	1.046	0.868
Feelings about home life	1.700	1.719	-0.088	0.814	1.297	1.221	1.127	0.640
Attitude toward parents	1.788	1.825	-0.235	0.633	0.837	1.002	1.433	0.156
"	3.188	3.070	0.479	0.403	1.415	1.412	1.004	0.999
"	3.863	4.070	-0.839	0.412	1.549	1.237	1.567*	0.077
"	2.750	2.983	-0.824	0.472	1.650	1.598	1.066	0.808
"	3.600	3.790	-0.721	0.378	1.556	1.461	1.134	0.622

Table 3
... Continued

Variable	Persister $\overline{X}$	Nonpersister $\overline{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Last year Attended School	48.500	43.702	0.884	0.189	31.976	30.352	1.110	0.685
Level of Education	4.050	4.474	-1.321	0.454	1.483	2.269	2.339**	0.001
Program Choice	0.675	0.877	-0.751	0.238	1.508	1.615	1.148	0.589
Major Objective	3.913	4.526	-1.186	0.217	2.900	3.106	1.147	0.591
Plans after Graduation	4.300	4.719	-0.834	0.406	3.003	2.750	1.193	0.009
Difficulty Course Content	1.275	1.491	-1.152	0.251	0.842	1.351	2.578**	0.488
Hrs/Week Study	23.600	25.211	-1.195	0.234	7.859	7.655	1.054	0.000
Academic Performance	1.863	1.579	0.622	0.535	2.727	2.493	1.197	0.843

Table 3
... Continued

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Social Life	3.113	2.983	0.705	0.482	1.006	1.142	1.287	0.480
"	3.613	3.649	-0.209	0.835	0.961	1.077	1.256	0.320
"	3.013	2.825	1.252	0.213	0.893	0.826	1.167	0.369
"	4.175	4.000	1.666**	0.098	0.522	0.707	1.833**	0.544
"	3.125	2.898	1.277	0.204	1.011	1.080	1.142	0.018
Financial Recources	1.638	1.491	1.714**	0.089	0.484	0.504	1.087	0.604
"	1.263	1.228	0.457	0.649	0.443	0.423	1.094	0.748
"	1.013	1.000	0.000	0.000	0.000	0.000	0.000	0.728
"	1.275	1.298	-0.295	0.768	0.449	0.462	1.055	0.840
"	1.125	1.035	1.844**	0.673	0.333	0.186	3.214**	0.000
"	1.063	1.088	-0.556	0.579	0.244	0.285	1.373	0.211
"	1.275	1.351	-0.946	0.346	0.449	0.482	1.148	0.589
"	1.325	1.263	0.775	0.439	0.471	0.444	1.126	0.645
"	1.038	1.035	0.074	0.941	0.191	0.186	1.061	0.824
Education/ Ability to Finance	3.038	3.070	-0.128	0.899	1.453	1.510	1.080	0.769

t p.05 (1.980)*
p.10 (1.658)**

F p.05 (1.52)*
p.01 (1.82)**

Table 4

Means and Standard Deviations for 80 Persisters and 57 Nonpersisters on the six scales of the FIRO-B

Variable	Persister $\overline{X}$	Nonpersister $\overline{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Expressed Inclusion	4.075	4.316	-0.608	0.545	2.310	2.253	1.051	0.852
Wanted Inclusion	3.675	2.965	1.241	0.217	3.427	3.117	1.209	0.456
Expressed Control	1.375	2.088	-2.013*	0.046	2.059	2.020	1.038	0.891
Wanted Control	2.200	2.386	-0.505	0.614	2.167	2.059	1.107	0.694
Expressed Affection	3.038	3.158	-0.300	0.765	2.330	2.297	1.029	0.921
Wanted Affection	4.200	3.965	0.513	0.609	2.697	2.563	1.107	0.692

t p.05* (1.980)
p.10** (1.658)

F p.05* (1.52)
p.01** (1.82)

is therefore rejected.

Hypothesis 5

Female persisters as opposed to female nonpersisters will not exhibit differences on psychological, educational and demographic variables.

Findings

Means and standard deviations for persister females and nonpersister females appear in Tables 5-8. *t* tests for significance of difference for independent samples were used to compare the means. Results from these analyses indicated that persister females can be distinguished from nonpersister females on one demographic and two educational attitude variables at the .05 level of significance.

Mothers of persister females tended to be significantly more foreign born.

Persister females expressed significantly stronger agreement with the following educational attitude variables:

1. School training is of little help in meeting the problems of real life.

2. An educated person can advance more rapidly in business and industry.

Additional differences were observed at the .10 level of significance. Two demographic variables further differentiated these groups. Fathers of female persisters tended to be significantly more foreign born. Persisters agreed significantly more than nonpersisters that their mother would be happy they were going to college. Differences were also observed on 4 educational attitude items. Persisters tend to agree significantly more with the following:

Table 5

Means and Standard Deviations for 63 Persister and 39 Nonpersister Females on the six scales of the FIRO-B

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Expressed Inclusion	4.111	4.539	-0.927	0.356	2.244	2.292	1.044	0.903
Wanted Inclusion	4.127	3.410	1.065	0.289	3.363	3.201	1.103	0.756
Expressed Control	1.095	1.615	-1.448	0.151	1.757	1.771	1.016	0.975
Wanted Control	2.318	2.410	-0.206	0.838	2.306	2.061	1.252	0.462
Expressed Affection	3.032	3.103	-0.149	0.882	2.362	2.280	1.073	0.828
Wanted Affection	4.540	3.974	1.065	0.289	2.583	2.641	1.045	0.899

t p .05 (2.000)
p .10 (1.671)

F p.05 (1.67)
p.01 (2.08)

Table 6

Means and Standard Deviations for 27 Persister and 11 Nonpersister Females on the four scales that serve as the primary criteria for the Intellectual Disposition Category of the OPI

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Thinking Introversion	46.370	46.364	0.003	1.000	6.007	8.835	2.163	0.202
Theoretical Orientation	45.185	44.818	0.127	0.900	7.661	9.053	1.396	0.596
Estheticism	43.926	45.545	-0.687	0.496	6.439	6.962	1.169	0.833
Complexity	48.630	51.727	-0.960	0.343	8.459	10.335	1.493	0.517

t p.05 (2.042)
p.10 (1.697)

F p.05 (2.74)
p.01 (4.33)

Table 7

Means and Standard Deviations for 63 Persister and 39 Nonpersister Females on the Educational Scale

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Work better	1.079	0.949	1.491	0.139	0.518	0.224	5.363**	0.000
Enjoy life	3.286	3.205	0.397	0.692	0.906	1.128	1.551	0.148
Use leisure	3.286	3.231	0.230	0.819	1.197	1.135	1.113	0.733
Great comfort	3.556	3.436	0.529	0.598	1.089	1.142	1.100	0.764
Only 3R's	2.540	2.949	-1.699**	0.092	1.216	1.123	1.173	0.605
No help getting job	3.937	3.745	0.846	0.399	1.105	1.141	1.065	0.849
Getting too much	4.286	3.897	1.901**	0.060	0.851	1.209	2.022*	0.022
Worth Effort	3.921	3.692	0.987	0.326	1.067	1.239	1.347	0.326
Encourage Thinking	4.079	3.974	0.506	0.614	0.956	1.112	1.354	0.319
Fads & Frills	3.333	3.205	0.547	0.586	1.078	1.260	1.368	0.303
Discontented	3.175	2.923	1.022	0.309	0.853	1.628	3.647**	0.000

Table 7
...Continued

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Life Problems	4.1429	3.718	2.281*	0.025	0.780	1.099	1.986*	0.025
Less Conceited	3.651	3.256	1.900**	0.060	0.953	1.117	1.374	0.295
World Problems	2.667	2.513	0.846	0.400	0.762	1.073	1.983*	0.026
Courses Impractical	3.476	3.205	1.386	0.169	0.800	1.174	2.151**	0.013
School Foolish	3.825	3.769	0.416	0.679	0.583	0.777	1.774	0.060
Wise Investment	4.191	3.872	1.869	0.065	0.619	1.105	3.190**	0.000
Can Advance	4.222	3.897	2.244*	0.027	0.580	0.882	2.311**	0.006
Not Compulsory	3.952	3.564	1.961**	0.053	0.869	1.119	1.657	0.097
More Valuable	3.683	3.744	-0.238	0.813	1.293	1.208	1.146	0.661
Better Citizen	4.064	4.000	0.397	0.693	0.738	0.858	1.354	0.319
Other Purposes	3.191	2.846	1.551	0.124	1.076	1.113	1.071	0.833

t p.05 (2.000)*
p.10 (1.671)**

F p.05 (1.67)*
p.01 (2.08)**

Table 8

Means and Standard Deviations for 63 Persister and 39 Nonpersister Females on 42 Demographic Variables

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Age	23.191	21.205	1.229	0.222	8.197	7.473	1.203	0.547
Birthplace	1.889	1.333	1.645	0.103	1.977	0.927	4.545**	0.000
Type of Community	3.968	4.359	-0.913	0.363	2.177	1.967	1.226	0.506
Father's Occupation	2.857	3.539	-1.567	0.120	1.848	2.532	1.878*	0.039
Father's Birthplace	2.603	1.641	1.941**	0.055	2.774	1.739	2.543	0.003
Father's Education	3.365	3.077	0.554	0.581	2.504	2.630	1.103	0.756
Mother's Occupation	2.333	2.641	-0.615	0.540	2.369	2.590	1.195	0.561
Mother's Education	3.064	3.180	-0.237	0.814	2.299	2.574	1.253*	0.459
Mother's Birthplace	2.130	1.667	2.165*	0.033	2.807	1.562	3.230**	0.000

Table 8
... Continued

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Number of Brothers & Sisters	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Father's feelings about college	3.175	2.923	0.639	0.525	2.020	1.783	1.284	0.411
Mother's feelings about college	4.508	4.051	1.897**	0.061	0.998	1.432	2.058*	0.019
Parents marital status	2.413	3.590	-1.513	0.134	3.719	3.978	1.145	0.663
Feelings about home life	1.762	1.769	-0.027	0.979	1.376	1.287	1.144	0.665
Attitude toward Parents	1.698	1.821	-0.674	0.502	0.835	0.970	1.348	0.326
"	3.254	3.077	0.607	0.545	1.402	1.476	1.108	0.746
"	3.921	4.103	-0.607	0.545	1.569	1.294	1.471	0.204
"	2.698	2.846	-0.441	0.660	1.652	1.631	1.026	0.948
"	3.667	3.744	-0.239	0.812	1.586	1.568	1.023	0.956

Table 8
... Continued

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Last year attended school	48.111	41.462	1.033	0.304	32.216	30.579	1.110	0.740
Level of education	4.222	4.692	-1.238	0.219	1.419	2.419	2.904**	0.000
Program choice	0.699	0.872	-0.557	0.579	1.552	1.490	1.085	0.800
Major objective	3.651	4.205	-0.931	0.364	2.835	3.062	1.167	0.617
Plans after graduation	4.381	4.436	-0.090	0.929	3.129	2.780	1.267	0.438
Difficulty course content	1.349	1.359	-0.046	0.963	0.883	1.246	1.991*	0.025
Hrs/Week study	23.587	25.231	-1.114	0.268	7.306	7.128	1.050	0.885
Academic per performance	1.921	1.718	0.363	0.718	2.819	2.615	1.161	0.628

Table 8
...Continued

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Social Life	3.048	3.000	0.216	0.829	1.054	1.124	1.137	0.679
"	3.619	3.795	-0.935	0.352	1.023	0.732	1.952*	0.029
"	2.952	2.692	1.513	0.133	0.941	0.655	2.062*	0.018
"	4.222	4.154	0.716	0.476	0.490	0.432	1.289	0.404
"	3.064	2.821	1.184	0.239	0.982	1.048	1.140	0.673
Financial Resources	0.556	0.513	0.417	0.678	0.501	0.506	1.022	0.959
"	0.270	0.256	0.148	0.883	0.447	0.442	1.023	0.956
"	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
"	0.286	0.282	0.040	0.969	0.455	0.456	1.002	0.987
"	0.143	0.051	1.450	0.150	0.353	0.224	2.492**	0.003
"	0.048	0.103	-1.062	0.291	0.215	0.307	2.050*	0.019
"	0.238	0.333	-1.043	0.300	0.429	0.478	1.237	0.486
"	0.270	0.308	-0.408	0.684	0.447	0.468	1.092	0.783
"	0.048	0.051	-0.082	0.934	0.215	0.224	1.084	0.803
Ability to finance education	3.064	3.385	-1.090	0.278	1.501	1.350	1.237	0.486

t p.05* (2.000)
p.10** (1.671)

F p.05* (1.67)
p.01** (2.08)

1. Most people are getting too much education.

2. Education tends to make an individual less conceited.

3. Parents should not be compelled to send their children to school.

While nonpersisters tend to agree significantly more with:

Only subjects like reading, writing and arithmetic should be taught at public expense.

F tests for significance of difference between independent variances produced significant differences on 8 demographic and 9 educational attitude items. Although this finding suggests diversity, it in itself is insignificant when considering 76 variables.

Conclusion

Hypothesis 5 is rejected. Female persisters as opposed to female nonpersisters did exhibit differences on psychological, educational and demographic variables.

Hypothesis 6

Male persisters as opposed to male nonpersisters will not exhibit differences on psychological,educational and demographic variables.

Findings

Results from comparison of the means of male persisters and male nonpersisters using t tests for significance of difference between independent samples are reported in Tables 9-12. At the .05 level of significance, a difference was indicated on 3 variables. Male persisters scored significantly higher on the Complexity scale of the OPI. This measure reflects a flexible orientation rather than a fixed way of viewing phenomena. The other two significant variables relate to how males finance their college education. Male persisters indicated that they

Table 9

Means and Standard Deviations for 17 Persister and 18 Nonpersister Males on the six scales of the FIRO-B

Variable	Persister $\overline{X}$	Nonpersister $\overline{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Expressed Inclusion	3.941	3.833	0.134	0.894	2.609	2.149	1.475	0.435
Wanted Inclusion	2.000	2.000	0.000	1.000	3.221	2.756	1.357	0.539
Expressed Control	2.412	3.111	-0.836	0.409	2.740	2.193	1.561	0.372
Wanted Control	1.765	2.333	-0.908	0.370	1.522	2.114	1.930	0.189
Expressed Affection	3.059	3.278	-0.277	0.784	2.277	2.396	1.108	0.834
Wanted Affection	2.941	3.944	-1.124	0.260	2.817	2.461	1.310	0.586

t p .05* (2.042)
p .10** (1.697)

F p .05* (2.29)
p .01** (3.27)

Table 10

Means and Standard Deviations for 9 Persister and 3 Nonpersister Males on the four scales that serve as the primary criteria for the Intellectual Disposition Category of the OPI.

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Thinking Introversion	42.889	38.667	0.807	0.438	8.038	7.024	1.310	0.994
Theoretical Orientation	45.000	47.000	-0.455	0.659	5.874	8.888	2.290	0.679
Estheticism	40.556	39.667	0.130	0.899	9.825	11.930	1.475	0.931
Complexity	52.444	28.000	2.437*	0.035	11.620	24.331	4.384	0.398

t
p .05* (2.228)
p .10** (1.812)

F
p .05* (19.37)
p .01** (99.36)

Table 11

Means and Standard Deviations for 17 Persister and 18 Nonpersister Males on the Educational Scale

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Work better	1.294	1.667	0.578	0.567	0.686	0.618	1.231	0.674
Enjoy life	3.294	3.444	-0.466	0.644	0.985	0.922	1.142	0.786
Use leisure	3.353	3.556	-0.517	0.609	1.272	1.042	1.491	0.422
Great comfort	3.471	3.667	-0.606	0.549	1.125	0.767	2.150	0.128
Only 3R's	2.471	2.778	-0.701	0.488	1.231	1.353	1.208	0.702
No help getting job	3.824	3.778	0.115	0.909	1.237	1.114	1.232	0.673
Getting too much	4.294	4.167	0.541	0.592	0.686	0.707	1.062	0.900
Worth Effort	3.824	3.667	0.518	0.608	0.809	0.970	1.438	0.465
Encourage Thinking	3.765	3.833	-0.222	0.826	0.903	0.924	1.045	0.926
Fads & Frills	3.529	3.167	0.943	0.353	1.007	1.249	1.536	0.389
Discontented	2.882	3.000	-0.334	0.740	0.928	1.138	1.504	0.412

Table 11
...Continued

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Life Problems	4.235	3.944	0.969	0.340	0.562	1.110	3.897**	0.008
Less Conceited	3.353	3.500	-0.375	0.710	1.057	1.249	1.395	0.503
World Problems	2.588	2.389	0.487	0.630	0.939	1.420	2.285*	0.101
Courses Impractical	3.647	3.056	1.572	0.125	0.702	1.392	3.934**	0.008
School Foolish	3.765	3.500	0.857	0.398	0.752	1.043	1.922	0.192
Wise Investment	4.177	3.944	0.753	0.457	0.728	1.056	2.105	0.138
Can Advance	3.941	3.444	1.380	0.177	0.659	1.338	4.128**	0.006
Not Compulsory	3.824	3.111	1.534	0.135	1.015	1.641	2.616*	0.057
More Valuable	3.059	3.278	-0.443	0.661	1.391	1.527	1.205	0.706
Better Citizen	4.059	3.778	0.935	0.356	0.556	1.114	4.021**	0.007
Other Purposes	2.824	3.111	-0.835	0.410	0.809	1.183	2.137	0.131

t p.05* (2.042)
p.10** (1.697)

F p.05* (2.29)
p.01** (3.27)

Table 12

Means and Standard Deviations for 17 Persister and 18 Nonpersister Males on 42 Demographic Variables

Variable	Persister $\overline{X}$	Nonpersister $\overline{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Age	21.941	24.167	-0.988	0.330	4.039	8.410	4.337*	0.004
Birthplace	2.235	3.500	-1.498	0.144	2.166	2.770	1.636	0.323
Type of Community	2.588	2.889	-0.466	0.644	1.660	2.111	1.617	0.335
Father's Occupation	3.882	3.056	1.258	0.217	1.616	2.209	1.869	0.211
Father's Birthplace	3.353	4.111	-0.714	0.480	2.999	3.270	1.189	0.725
Father's Education	2.941	2.611	0.350	0.729	2.657	2.913	1.202	0.709
Mother's Occupation	3.294	2.333	0.913	0.368	3.478	2.723	1.632	0.326
Mother's Education	2.471	2.944	-0.487	0.630	2.718	3.019	1.233	0.672
Mother's Birthplace	3.294	3.667	-0.369	0.714	2.845	3.106	1.192	0.722

Table 12
...Continued

Variable	Persister $\bar{X}$	Nonpersister $\bar{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Number of Brothers & Sisters	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Father's feelings about college	2.647	3.556	-1.722**	0.094	1.222	1.822	2.224	0.112
Mother's feelings about college	4.118	4.222	-0.285	0.778	0.993	1.166	1.380	0.517
Parent's marital status	5.882	4.556	0.994	0.328	3.655	4.204	1.323	0.573
Feelings about home life	1.471	1.611	-0.406	0.687	0.943	1.092	1.341	0.554
Attitude toward parents	2.118	1.833	0.878	0.386	0.781	1.098	1.976	0.174
"	2.941	3.056	-0.243	0.809	1.478	1.305	1.283	0.615
"	3.647	4.000	-0.788	0.436	1.498	1.138	1.733	0.271
"	2.941	3.278	-0.622	0.538	1.676	1.527	1.205	0.705
"	3.353	3.889	-1.179	0.247	1.455	1.231	1.397	0.501
Last year attended School	49.941	48.556	0.132	0.896	32.000	30.135	1.128	0.806

Table 12
...Continued

Variable	Persister $\overline{X}$	Nonpersister $\overline{X}$	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Level of education	3.412	4.000	-0.999	0.325	1.584	1.879	1.408	0.491
Program choice	0.588	0.889	-0.533	0.598	1.372	1.906	1.931	0.189
Major Objective	4.882	5.222	-0.324	0.748	3.018	3.173	1.105	0.838
Plans after Graduation	4.000	5.333	-1.513	0.140	2.550	2.657	1.086	0.865
Difficulty Course Content	1.000	1.778	-1.925**	0.063	0.612	1.555	6.449**	0.000
Hrs/Week Study	23.647	25.167	-0.478	0.636	9.905	8.913	1.235	0.669
Academic Performance	1.647	1.278	0.468	0.643	2.422	2.244	1.165	0.756
Social Life	3.353	2.944	1.176	0.248	0.786	1.211	2.376*	0.086
"	3.588	3.333	0.612	0.545	0.712	1.572	4.870**	0.002
"	3.235	3.111	0.407	0.687	0.664	1.079	2.637*	0.055
"	4.000	3.667	1.156	0.256	0.612	1.029	2.824	0.041
"	3.353	3.056	0.722	0.446	1.115	1.162	1.086	0.865

Table 12
...Continued

Variable	Persister $\bar{X}$	Nonpersister	t	P	Persister S.D.	Nonpersister S.D.	F Ratio	P
Financial Resources	0.941	0.444	3.636*	0.000	0.243	0.511	4.444**	0.004
"	0.235	0.167	0.494	0.624	0.437	0.384	1.300	0.596
"	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000
"	0.235	0.333	-0.627	0.535	0.437	0.485	1.231	0.674
"	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000
"	0.118	0.056	0.641	0.526	0.332	0.236	1.986	0.171
"	0.412	0.389	0.134	0.894	0.507	0.502	1.023	0.960
"	0.529	0.167	2.374*	0.024	0.515	0.384	1.800	0.240
"	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ability to finance education	2.941	2.389	1.096	0.281	1.298	1.650	1.617	0.335

t p.05* (2.042)
p.10** (1.697)

F p.05* (2.29)
p.01** (3.27)

financed their education by working during the summer and by using money saved significantly more than nonpersisters. Further demographic differences were noted between these nominal groups at the .10 level. The groups differed in their perceptions regarding their father's feelings about attending college and the expected difficulty of course content.

Results from F tests for a significance of difference between independent variances produced differences on 6 demographic and 6 educational variables. These results are indicative of some diversity between the groups; however, considering 76 variables were analyzed they alone are not significant.

Conclusion

Hypothesis 6 is rejected. Male persisters as opposed to male nonpersisters did exhibit differences on psychological, educational and demographic variables.

SUMMARY OF RESULTS

This summary of results consists of two parts. Table 13 reports all findings of significance at the .05 level. Table 14 is a recording of differences at the .10 level which do not meet the criterion level of significance set for this study, but are worth noting in that they are indicative of trends toward differences between the two groups in question.

Table 13

Findings of Significance (.05) For Both Sexes

Variable Category	Variable	Group Scoring Higher
Educational	School training is of little help in meeting the problems of real life.	Persisters
	College courses are too impractical.	Persisters
	Savings spent on education are wisely invested.	Persisters
	An educated person can advance more rapidly in business and industry.	Persisters
	Parents should not be compelled to send their children to school.	Persisters
Psychological	Expressed Control - FIRO-B	Nonpersisters
	Findings of Significance for Females	
Educational	School training is of little help in meeting the problems of real life.	Persisters
	An educated person can advance more rapidly in business and industry.	Persisters
Demographic	Mother's place of birth (more foreign born)	Persisters
	Findings of Significance for Males	
Psychological	Complexity Scale - OPI	Persisters
Demographic	Financial resources -- Savings Summer Work	Persisters

Table 14

Trends Toward Difference (.10) For Both Sexes

Variable Category	Variable	Group Scoring Higher
Educational	Most young people are getting too much education.	Persisters
Demographic	Social Life -- Looking forward to meeting new people.	Persisters
	Financial Resources - summer work support from spouse	Persisters
	Trends Toward Differences for Females	
Educational	Most young people are getting too much education.	Persisters
	Education tends to make an individual less conceited.	Persisters
	Parents should not be compelled to send their children to school.	Persisters
	Only subjects like reading, writing and arithmetic should be taught at public expense.	Nonpersisters
Demographic	Father's place of birth -- more foreign born.	Persisters
	Mother's feelings about college -- in support.	Persisters
	Trends Toward Differences For Males	
Demographic	Father's feelings about college -- in support.	Nonpersisters
	Expected difficulty of course content.	Nonpersisters

CHAPTER FIVE

IMPLICATIONS

This chapter presents a summary and discussion of the research findings of this study. Further questions and possible directions for continued research as well as implications for the college setting are suggested.

Summary and Discussion

Psychological, educational and demographic variables were used to compare persister and nonpersister college students. *t* tests for a significance of difference between independent samples were used to analyze scores on the FIRO-B, Student Entrance Questionnaire and the OPI. Results indicated that there were significant differences (.05) between the two groups.

When considering both sexes, educational attitude and psychological factors were the best predictors. Persisters could be distinguished (.05) from nonpersisters by 5 items on an Educational attitude scale as well as the Expressed Control scale of the FIRO-B. Evidence of trends toward differences (.10) were further established as results indicated distinction on one additional educational attitude item and three demographic variables.

Examination of these results suggests persisters of both sexes agreed with educational attitude items expressing a pragmatic as opposed to a theoretical orientation towards education. It seems plausible then, as Bosetti (1972) suggests of other post-secondary nonuniversity students, that persisters at Grant MacEwan Community College have goals that are vocational in nature. Persisting students

are perhaps enabled to realize these goals since they are more able to adapt to a structured environment over which they may not have direct control than nonpersisters, as indicated by the Expressed Control scale score.

Although demographic variables suggest that persisters look forward to meeting new people at college, scores on the Expressed and Wanted Inclusion scales of the FIRO-B do not lend support to this predisposition. Further demographic factors indicate that financial resources of the two groups differed although the burden of financing their education did not.

When the two groups were controlled for sex differences, significance of difference was reported for both males and females. Female persisters could be differentiated (.05) from female nonpersisters on one demographic and two educational attitude items. Supplemental examination of these results (.10) revealed trends toward additional difference on two demographic and four educational items. The demographic items related to parents. Parents of female persisters were significantly more foreign born. Mothers of female persisters were reported to be in significantly more agreement with their daughters choosing to attend college than were those of nonpersisters. Educationally, consistent with opinions for both sexes, female persisters also agreed with statements expressing pragmatic educational goals.

Finally, significant differences (.05) between male persisters and male nonpersisters were reported on the Complexity scale of the OPI and on demographic items indicating financial resources. There were also indications (.10) that these two groups differed on their father's feelings about college and expected difficulty of course content.

These results may indicate that although nonpersisters reported more support from their fathers in choosing to attend college, they appeared to be less able to tolerate ambiguity and expected the courses to be more difficult than nonpersisters. Moreover, male persisters may be more prepared financially; however, there is no reported difference between the groups in ability to finance education.

From the above discussion, it seems apparent that educational attitude and psychological variables are the most salient discriminators of persistence as opposed to nonpersistence when samples consist of both sexes. Future research, therefore, should concentrate on discovering more effective disciminators in the attitudinal and psychological areas. Demographic data, on the other hand, appeared to have some power in discriminating persisters from nonpersisters of the same sex; however, its collection involves much time which could probably be spent more productively refining attitudinal and psychological measures.

Implications for the College

The goal of this study was to isolate psychological, educational, and demographic dimensions related to nonpersistence at Grant MacEwan Community College. It was hoped that the results would have implications for three college groups: administrators, counsellors and students.

Individually, the results range in relevance. To the administrator, who is interested in improving the quality of education, the study has few implications. To the counsellor, who works with educational attitude and psychological factors, the results offer most. To

the student, who is interested in his chances of persisting there is information that could be used by a counsellor in assisting him make decisions about college.

Since the results have most relevance to counsellors, it is appropriate that some specific applications be cited. As persistence appears to be related to a pragmatic attitude toward education as well as vocational goals, students expressing contradictory views should be made aware that they may not have as great a chance of persisting as someone expressing compatible views and goals. Caution should, however, be exercised in application of results since the sample consisted of only those students giving complete information. It therefore is conceivable that the study sample consisted of a higher portion of persisters than total freshmen population would have.

Collectively, the results of the study give direction for further research. Future studies could concentrate on educational attitude and psychological variables. Meanwhile however, the problem of attrition exists, so while research continues, as Pantages and Creedon (1978) recommend, the college should shift its attention from prediction to the prevention of attrition. Concerned writers (Brown, 1973; Ommen, 1974; Cochran, 1975; Mynatt, 1973; Pantages and Creedon, 1978) suggest various intervention programs. Preventive programs could include: comprehensive orientation programs, active outreach counselling programs for students 'at risk', additional efforts at job development for graduates and creation of new ways to maximize faculty-student interaction.

REFERENCES

References

Astin, A. Preventing Students From Dropping Out. San Francisco: Jossey-Bass, Inc., 1975.

Bean, A.G. and Covert, R.W. Prediction of college persistence, withdrawal and academic dismissal: A discriminant analysis. Educational and Psychological Measurement, 1973, 33, 407-11.

Bloxom, B. FIRO-B in O. Buros (ed.) The Seventh Mental Measurements Yearbook, New Jersey: Gryphon Press, 1972.

Bosetti, R.A. The Alberta System of Post-Secondary Non-University Education. Edmonton: Alberta Colleges Commission, 1972.

Boshier, R. Development and use of a dropout prediction scale; personality and environmental scales and dropout prediction. Adult Education, 1972, 22, 87-99.

Bossell, H. College student and dropout problem: A qualitative dynamic simulation. Instructional Science, 1974, 3(1), 23-50.

Brawer, F.B. A comparison of personality characteristics of community college student dropouts and persisters. ERIC Clearinghouse for Junior Colleges, 1973.

Brawer, F. and Cohen, A. Student characteristics and dropout propensity. ERIC Clearinghouse, 1970. (ED038130).

Brooks, W. and Emery, L. College dropouts: A view from two schools. Canadian Counsellor, 1974, 8(3), 146-151.

Brown, R.B. The effect of self-awareness classes on the attrition rate of college freshmen. Dissertation Abstracts International, 1973, 33(8-A), 4081-4082.

Coan, R.W. The Omnibus Personality Inventory in O. Buros (ed.) The Seventh Mental Measurements Yearbook, New Jersey: Gryphon Press, 1972.

Cochran, J.A. A descriptive study examining grades, reading ability and attrition rate of certain low-income freshmen at Arizona State University. Dissertation Abstracts International, 1975, 35(7-A), 4042-4043.

Colozzi, E.A. Did they leave for the best of reasons? A study of persistence and admissions in an open admissions community college. Dissertation Abstracts International, 1974, 34 (9-A), 5513.

Cope, R.G. Selected Omnibus Personality Inventory scales and their relationship to a college's attrition. Educational and Psychological Measurement, 1968, 28, 599-603.

Cope, R.G. and Hannah, W. Revolving College Doors: The Causes and Consequences of Dropping Out, Stopping Out and Transfering. New York: Wiley, 1972.

DeVecchio, R.C. Characteristics of nonreturning community college freshmen. Journal of College Student Personnel, 1971, 12(1), 16-19.

Hannay, W. Personality differentials between lower division dropouts and stayins. Journal of College Student Personnel, 1971, 12(1), 16-19.

Heilbrun, A.B. Personality factors in college dropout. Journal of Applied Psychology, 1965, 49(1), 1-7.

Heist, P., et.al. Omnibus Personality Inventory, New York: Psychological Corporation, 1963.

Kegan, D.L. The quality of student life and financial costs: The cost of social isolation. Journal of College Student Personnel, 1978, 19(1), 55-58.

Johnson, C.W. Nonintellective factors related to college achievement and attrition. Dissertation Abstracts International, 1971, 31, (10-A), 5129-5130.

Lanning, W. Factors related to college student persistence and withdrawal. NASPA Journal, 1977, 15(Fall), 34-38.

Macmillan, T.F. and Kester, D.N. Promises to keep: NORCAL impact on student attrition. Community and Junior College Journal, 1973, 43, 45-46.

Maynard, D. Personality characteristics of community college students. Journal of College Student Personnel, 1975, 16(4), 323-329.

McIntosh, B., Wilson, L., Lipinski, B. The extent and nature of student attrition in the first five years at Simon Fraser University. Canadian Counsellor, 1974, 8(3), 163-174.

McReynolds, P. Omnibus Personality Inventory, in O. Buros (ed.) The Seventh Mental Measurements Yearbook, New Jersey: Gryphon Press, 1972.

Morgan, M.K. The OPI and the ACT and university attrition: A discriminant analysis. Dissertation Abstracts International, 1971, 31(8-A), 3906-3907.

Morrisey, R.J. Attrition in probationary freshmen. Journal of College Student Personnel, 1971, 12, 279-285.

Morrison, J.L. Why the disadvantaged dropout: The administrator's view. College Student Journal, 1973, 7(2), 54-56.

Mynatt, H.L. The effects of a developmental education program in a community college upon self-concept, grade-point average and attrition. Dissertation Abstracts International, 1973, 33(8-A), 4094.

Oldyrod, R.J. Maximizing dropout prediction using the college autobiography inventory. Dissertation Abstracts International, 1975, 35(7-A), 4165.

Ommen, J. The effects of group counselling on the persistence rate of entering community college freshmen. Dissertation Abstracts International, 1974, 35(5-B), 2410-2411.

Pandey, R.E. Intellectual characteristics of successful, dropout, and probationary black and white university students. Psychological Reports, 1974, 34(3), 951-953.

Pantages, T.J. and Creedon, C.F. College attrition. Review of Educational Research, 1978, 48(1), 49-101.

Pascarella, E.T. and Terenzini, P.T. Patterns of student-faculty informal interaction beyond the classroom and voluntary freshman attrition. Journal of Higher Education, 1977, 58(5), 540-551.

Pedrini, D.T. and Pedrini, B.C. Assessment and prediction of grade point and/or attrition.persistence for disadvantaged and regular college freshmen. College Student Journal, 1976, 10(3), 260-264.

Rose, H. Prediction and prevention of freshmen attrition. Dissertation Abstracts International, 1970, 31(4-B), 2264.

Sainty, G.E. Predicting dropouts in adult education courses. Adult Education, 1971, 21, 223-230.

Schutz, W. FIRO-B. California: Consulting Psychologists Inc., 1957.

Shaw, M.E. and Wright, J.M. Scales for the Measurement of Attitudes. New York: McGraw-Hill, 1967.

Stanfiel, J.D. Socioeconomic status as related to aptitude, attrition and achievement of college students. Sociology of Education, 1973, 46(4), 480-488.

Starr, A., Betz, E., Menne, J. Differences in college student satisfaction: Academic dropouts, nonacademic dropouts and nondropouts. Journal of Counselling Psychology, 1972, 19(4), 318-322.

Steele, M.W. Correlates of undergraduate retention at the University of Miami. Journal of College Student Personnel, 1978, 19(4), 349-352.

Spady, W.G. Dropouts from higher education: An interdisciplinary review and synthesis. Interchange, 1970, 1(April), 64-85.

Spady, W.G. Dropouts from higher education: Toward an empirical model. Interchange, 1971, 2(3), 38-62.

Tarver, D.A. The identification and comparison of groups of students withdrawing from the university of Texas at Austin. Dissertation Abstracts International, 1973, 34(5-A), 2401.

Terenzini, P.T. and Pascarella, E.T. Voluntary freshman attrition and patterns of social and academic integration in a university: A test of a conceptual model. Research in Higher Education, 1977, 6(March), 25-43.

Timmons, F.R. Personality and demographic factors associated with freshmen withdrawal from college. Dissertation Abstracts International, 1972, 33(4-B), 1818-1809.

Timmons, F.R. Freshman withdrawal from college: A positive step. Journal of Youth and Adolescence, 1978, 7(2), 159-173.

Tinto, V. Dropout from higher education: A theoretical synthesis of recent research. Review of Educational Research, 1975, 45(1), 89-125.

Trent, J. and Ruyle, J. Variation, flow and patterns of college attendence. College and University, 1965, 41, 61-76.

Vanderwell, A., and Sartoris, P.C. Study of withdrawing students for the University of Alberta 1970-71 session. Canadian Counsellor, 1973, 7(1), 41-48.

Vraa, C.W. Predicting academic achievement of Canadian college freshmen. Journal of College Student Personnel, 1971, 12(4), 303-308.

Wenc, L.M. The role of financial aid in attrition and retention. The College Board Review, 104, 17-21.

Wilson, P. Attrition rate study. Course and Program Development Department, Grant MacEwan Community College, 1975.

Worth, W.H. A Future of Choices. Edmonton: Queen's Printer, 1972.

Zaccaria, L., and Creaser, J. Factors related to persistence in an urban commuter university. Journal of College Student Personnel, 1971, 12(4), 286-291.

APPENDICES

APPENDIX A

STUDENT ENTRANCE QUESTIONNAIRE

STUDENT ENTRANCE QUESTIONNAIRE

CODE # _____

FOR COMPUTER USE ONLY

COMPLETION OF THIS QUESTIONNAIRE IS VOLUNTARY. DO NOT ANSWER ANY QUESTIONS YOU DO NOT WANT TO

1. NAME: _____
   SURNAME FIRST NAME

4-9 2. COLLEGE I.D. NUMBER: [ ][ ][ ][ ][ ][ ]

10-11 3. AGE: _____

12 4. SEX: MALE [ ] FEMALE [ ]

13 5. PLACE OF BIRTH: _____
   COUNTRY PROVINCE/STATE TOWN/CITY

14 6. CHECK ONE OF THE FOLLOWING STATEMENTS WHICH BEST DESCRIBES THE TYPE OF COMMUNITY IN WHICH YOU LIVED DURING YOUR PRIMARY AND SECONDARY SCHOOL YEARS. (IF YOU LIVED IN MORE THAN ONE OF THE TYPES LISTED BELOW, CHECK THE SIZE OF COMMUNITY IN WHICH YOU SPENT THE GREATEST NUMBER OF THESE YEARS.)

A community with population over one million	
A community with population between 500,000 and one million	
A community with population between 100,000 and 500,000	
A community with population between 25,000 and 100,000	
A community with population between 5,000 and 25,000	
A community with population between 1,000 and 5,000	
A community with population less than 1,000	

15 7. WHICH OF THE FOLLOWING STATEMENTS BEST DESCRIBES THE TYPE OF LIVING ACCOMMODATION YOU WILL HAVE DURING YOUR TIME AT THE COLLEGE? (CHECK ONE)

I'll be staying with my parent(s)	
I'll be staying with other relatives	
I'll be staying with a friend	
I'll be staying w[illegible] than [illegible] friend	
I'll be livi[illegible]	
[illegible] livi[illegible]	
[illegible] livi[illegible]	

FOR COMPUTER USE ONLY

16 8. PRESENT MARITAL STATUS: (CHECK ONE)

- [ ] SINGLE
- [ ] MARRIED
- [ ] SEPARATED
- [ ] DIVORCED
- [ ] WIDOWED
- [ ] OTHER (SPECIFY) _____

17 9. WHAT IS/WAS YOUR FATHER'S OCCUPATION? _____

18 10. FATHER'S PLACE OF BIRTH: _____
COUNTRY CITY

19 11. FATHER'S EDUCATION: _____

20 12. MOTHER'S OCCUPATION: _____

21 13. MOTHER'S EDUCATION: _____

22 14. MOTHER'S PLACE OF BIRTH: _____
COUNTRY CITY

23-24 15. NUMBER OF BROTHERS AND SISTERS: [ ]

16. BESIDE EACH OF THE FOLLOWING STATEMENTS CHECK THE BOX WHICH MOST CLOSELY EXPRESSES THE WAY YOU THINK YOUR PARENTS FEEL (OR WOULD HAVE FELT) ABOUT YOUR GOING TO COLLEGE.

		STRONGLY AGREE	AGREE	DOESN'T CARE	DISAGREE	STRONGLY DISAGREE
25	My father is (would have been) very happy that I am going to college.					
26	My mother is (would have been) very happy that I am going to college.					

27-28

FOR COMPUTER USE ONLY

29 17. CHECK THE SQUARE BESIDE THE STATEMENT WHICH BEST DESCRIBES YOUR PARENTS' PRESENT MARITAL STATUS. (CHECK ONLY ONE)

- Living together ☐
- Separated ☐
- Divorced ☐
- One parent deceased ☐
- Both parents deceased ☐
- Other (describe) _____ ☐

30 18. WHICH OF THE FOLLOWING STATEMENTS BEST DESCRIBES HOW YOU GENERALLY FEEL (FELT) ABOUT YOUR HOME LIFE WITH YOUR PARENTS? (CHECK ONE)

- Very happy ☐
- Happy ☐
- Undecided ☐
- Unhappy ☐
- Very unhappy ☐

19. READ EACH ITEM CAREFULLY AND CHECK IN THE APPROPRIATE BOX THE PHRASE WHICH BEST DESCRIBES YOUR FEELING ABOUT THE STATEMENT. DO NOT SPEND MUCH TIME ON ANY ITEM. WORK RAPIDLY. BE SURE TO ANSWER EVERY ITEM. IF BOTH YOUR PARENTS ARE DECEASED DO NOT COMPLETE THIS QUESTION.

		STRONGLY AGREE	AGREE	UN-DECIDED	DISAGREE	STRONGLY DIS-AGREE
31	1. When I have a problem I usually ask my parents' advice.					
32	2. I don't particularly like to see my parents very often.					
33	3. My parents still help me out financially quite often.					
34	4. I don't respect my parents' opinions most of the time.					
35	5. If I have the opportunity, I would like to have a lifestyle similar to that of my parents.					

36-37 20. YOUR EDUCATIONAL BACKGROUND:

38-39 (a) WHAT YEAR DID YOU LAST ATTEND SCHOOL? ☐

40 (b) AT THAT TIME, WHAT GRADE WERE YOU IN? (IF UNIVERSITY OR COLLEGE, WHAT YEAR?) ☐

FOR COMPUTER USE ONLY

41-44 21. NAME OF GRANT MacEWAN COLLEGE PROGRAM IN WHICH YOU ARE ENROLLED:

_____

45 22. WAS THIS PROGRAM YOUR: (CHECK ONE)

FIRST CHOICE [ ]

SECOND CHOICE [ ]

THIRD CHOICE [ ]

46-48 23. WHEN DID YOU FIRST APPLY FOR ENROLLMENT IN GRANT MacEWAN COLLEGE?

YEAR [ ] MONTH [ ]

49 24. AS YOU UNDERSTAND IT, WHAT IS THE MAJOR OBJECTIVE OF YOUR PROGRAM? (CHECK ONE)

To educate and train students for employment in a specific area [ ]

To provide students with a general education [ ]

Other (Specify) _____ [ ]

READ EACH ITEM CAREFULLY AND CHECK IN THE APPROPRIATE BOX THE PHRASE WHICH BEST EXPRESSES YOUR FEELING ABOUT THE STATEMENT. Wherever possible, let your own personal experience determine your answer. Do not spend much time on any item. If in doubt, check the square which seems most nearly to express your present feeling about the statement. WORK RAPIDLY. Be sure to answer every item.

	STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE
1. A person can learn more by working four years than by going to college.					
2. The more education people have the better they are able to enjoy life.					
3. Education helps people to use their leisure time to better advantage.					
4. A good education is a great comfort to a person out of work.					
5. Only subjects like reading, writing, and arithmetic should be taught at public expense.					
6. Education is no help in getting a job today.					
7. Most young people are getting too much education.					
8. A college education is worth all the time and effort it requires.					
9. Our schools encourage individuals to think for themselves.					
10. There are too many fads and frills in modern education.					
11. Education only makes a person discontented.					

		STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE
[illegible]	12. School training is of little help in meeting the problems of real life.					
62	13. Education tends to make an individual less conceited.					
63	14. Solution of the world's problems will come through education.					
64	15. College courses are too impractical.					
[illegible]	16. A person is foolish to keep going to school if he/she can get a job.					
[illegible]	[illegible]. Savings spent on education are wisely invested.					
[illegible]	[illegible] educated person can advance more rapidly in business [illegible] industry.					
[illegible]	19. Parents should not be compelled to send their children to school.					
[illegible]	20. Education is more valuable than most people think.					
[illegible]	21. A college education makes a person a better citizen.					
[illegible]	[illegible]. [illegible] money spent on education during the past few years could have been used more wisely for other purposes.					

FOR COMPUTER USE ONLY

75 26. WHAT DO YOU EXPECT TO DO AFTER GRADUATION? (CHECK ONE)

- Get a job in an area related to your education ☐
- Go on for further education ☐
- Travel ☐
- Get any job you can ☐
- Don't know ☐
- Other (Specify) _____ ☐

76 27. HOW EASY/DIFFICULT DO YOU EXPECT THE COURSE CONTENT OF YOUR PROGRAM TO BE? (CHECK ONE)

- Very difficult ☐
- Difficult ☐
- Not too difficult ☐
- Easy ☐
- Very easy ☐

77-78 28. HOW MANY HOURS PER WEEK DO YOU THINK YOU WILL HAVE TO STUDY?

☐

79 29. HOW DO YOU THINK YOU WILL DO ACADEMICALLY COMPARED TO THE OTHER STUDENTS IN YOUR PROGRAM? (CHECK ONE)

- TOP 25% OF THE CLASS ☐
- SOMEWHERE IN THE MIDDLE ☐
- LOWER 25% OF THE CLASS ☐

FOR COMPUTER USE ONLY

80

1-3 30. READ EACH ITEM CAREFULLY AND CHECK IN THE APPROPRIATE BOX THE PHRASE WHICH BEST DESCRIBES YOUR FEELING ABOUT THE STATEMENT. DO NOT SPEND MUCH TIME ON ANY ITEM. WORK RAPIDLY. BE SURE TO ANSWER EVERY ITEM.

		STRONGLY AGREE	AGREE	UN-DECIDED	DIS-AGREE	STRONGLY DISAGREE
4	(1) At the present time I have what I consider a very active social life.					
5	(2) It is very difficult for me to make new friends.					
6	(3) During my time at the college I expect to have a very active social life.					
7	(4) I am looking forward to meeting new people at the college.					
8	(5) I don't expect to have time for much social life during my stay at the college.					

9-10

31. BELOW IS A LIST OF POSSIBLE WAYS IN WHICH A PERSON COULD PAY FOR THEIR COLLEGE EDUCATION. CHECK ANY OF THESE ITEMS WHICH DESCRIBE HOW YOU INTEND TO FINANCE YOUR COLLEGE EDUCATION.

11 (1) Using money I have saved ☐

12 (2) Obtaining student loans ☐

13 (3) Borrowing money privately from a bank ☐

14 (4) Obtaining financial assistance from my parents ☐

15 (5) Obtaining financial assistance from my wife/husband ☐

16 (6) Government grants or scholarships ☐

17 (7) Working part-time during the college year ☐

18 (8) Working during the summer ☐

19 (9) Other (describe) _____ ☐

32. CIRCLE THE NUM[illegible] CH BEST DESCRIBES HOW YOU FEEL ABOUT FINANCING YOUR [illegible] EDUCATION.

FINANCING MY EDUCATION [illegible] A REAL [illegible]

FINANCING MY EDUCATION WILL BE [illegible] BURDEN AT ALL

4 [illegible] 3

APPENDIX B

The fundamental interpersonal dimensions of the FIRO theory—Inclusion (*I*), Control (*C*), and Affection (*A*)—may be defined behaviorally as follows:

I. The interpersonal need for *inclusion* is the need to establish and maintain a satisfactory relationship with people with respect to interaction and association. Some terms that connote various aspects of a relationship that is primarily positive inclusion are "associate, interact, mingle, communicate, belong, companion, comrade, attend to, member, togetherness, join, extravert, pay attention to, interested, encounter." Negative inclusion is connoted by "exclude, isolate, outsider, outcast, lonely, detached, withdrawn, abandon, ignore."

C. The interpersonal need for *control* is the need to establish and maintain a satisfactory relationship with people with respect to control and power. Control behavior refers to the decision-making process between people. Some terms that connote aspects of primarily positive control are, "power, authority, dominance, influence, control, ruler, superior, officer, leader." Aspects of negative control are connoted by "rebellion, resistance, follower, anarchy, submissive, henpecked, milquetoast."

A. The interpersonal need for *affection* is the need to establish and maintain a satisfactory relationship with others with respect to love and affection. Some terms that connote aspects of primarily positive affection are "love, like, emotionally close, personal, intimate, friend, sweetheart." Aspects of negative affection are connoted by "hate, cool, dislike, emotionally distant, rejecting."

FIRO-B therefore comprises six scales: Expressed and Wanted behavior in the areas of Inclusion, Control, and Affection. The names of these scales are given in Table 1.

TABLE 1. NAMES AND SYMBOLS FOR FIRO-B SCALES

	Expressed Behavior	Wanted Behavior
Inclusion	e^I I make efforts to include other people in my activities and to get them to include me in theirs. I try to belong, to join social groups, to be with people as much as possible	w^I I want other people to include me in their activities and to invite me to belong, even if I do not make an effort to be included
Control	e^C I try to exert control and influence over things. I take charge of things and tell other people what to do	w^C I want others to control and influence me. I want other people to tell me what to do
Affection	e^A I make efforts to become close to people. I express friendly and affectionate feelings and try to be personal and intimate	w^A I want others to express friendly and affectionate feelings toward me and to try to become close to me

(From the Firo Scales Manual, William C. Schutz, 1967)

APPENDIX C

May 17, 1979

Dear

Grant MacEwan Community College records indicate that you were enrolled in the Fall 1975 Trimester. We are interested in learning about factors influencing student persistence at post-secondary education.

Will you please complete the enclosed questionnaire and return it to me in the stamped envelope provided? Your response will be greatly appreciated and are of vital importance to the success of this study. All information will be kept in strict confidence and will be used only to determine general trends.

Please return your response to me by May 31, 1979. Thank you for your co-operation.

Celia Smyth
Counsellor
Grant MacEwan Community College
Edmonton, Alberta

June, 1979

Dear

A short time ago questionnaires were sent to a number of students who attended Grant MacEwan Community College during 1975-76. Our records indicate that you were on the mailing list and that, we have not yet received your response. Another copy of the questionnaire is enclosed in hope that you may now find it possible to complete and return it. Your participation is of vital importance to the success of this study and is appreciated greatly.

Your responses will be kept in confidence and will be used only to establish general trends. Thank you for your cooperation.

Sincerely,

Celia Smyth
Counsellor
Grant MacEwan Community College

/enclosures